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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/922,438

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12/01/2003

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EXAMINER

PRITCHETT, JOSHUA L

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,438

Applicant(s)

EPSTEIN ET AL.

Examiner

Joshua L Pritchett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9,11,12,14-16 and 25-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9,11,12,14-16 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

This action is in response to Amendment A filed October 1, 2003. Claims 1, 11-12 and 14-16 have been amended, claims 2-3, 10, 13 and 17-24 have been canceled and claims 25-30 have been added as requested by the applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein (WO 01/31393) in view of Hayashi (US 6,204,903).

Regarding claims 1, 12, 16 and 25, Epstein teaches a light directing film having an x-axis, a y-axis and a z-axis, the film (324) comprising a first structured surface (332) and an opposing surface (between 324 and 326), the structured surface comprising a plurality of elongated prismatic structures (322) thereon (Fig. 3), the elongated prismatic structures extending generally along the x-axis (Fig. 3) and having a height along the z-axis (Fig. 3), the height of the prismatic structure (322) varying along the x-axis in a repeating period (Fig. 3).

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The x-axis in Fig. 3 of Epstein is considered to be from left to right across the page and the z-axis is considered to be from bottom to top along the page. Epstein teaches the wave period being a sine wave (Fig. 3). The repeating period of Epstein can be considered to be a rough sine wave in that the wave goes up and down and to the same maximum and minimum. Epstein teaches a reflective coating (320) on the light reflecting film (322). Epstein does not explicitly teach spacing of the prismatic structures along the y-axis. Hayashi teaches the use of a repeating elongated prismatic structure with spacing along the y-axis (Fig. 4). The x-axis of Fig. 4 of Hayashi is considered to be from left to right along the plane of the page, the y-axis is considered to be from front to back in the three-dimensional representation of Fig. 4 and the z-axis is considered to be from the bottom to the top of the page. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the y-axis spacing of Hayashi in the Epstein invention for the purpose of increase the surface area of the prismatic structures.

Regarding claims 4-5 and 26, Epstein teaches the prismatic structure includes randomness on along the z-axis and the randomness superimposed on the repeating period (Fig. 3). Layer 316 of Epstein introduces randomness to the along the z-axis of the Epstein invention and layer 316 is superimposed on prismatic structures 322.

Regarding claims 6 and 27-28, Epstein teaches the varying height of the prismatic structure provides diffusion in an XZ plane defined by the x-axis and the z-axis (Fig. 4). The dashed line extension of 32 is light the diffused through the prismatic structure 322 of Epstein.

Any light traveling in the plane of the page would be in the XZ plane according to the interpretation of Epstein.

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Regarding claim 9, Epstein teaches the invention as claimed but lacks reference to variable spacing along the y-axis. Hayashi teaches variable spacing of the prismatic structures along the y-axis (Fig. 4). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to equip Epstein with variable spacing along the y-axis as taught by Hayashi for the purpose of reducing moiré interference patterns in the film.

Regarding claims 11, 14 and 29, Epstein teaches the reflective coating is a metallic coating (page 6 line 16).

Regarding claim 15, Epstein teaches the addition of a polarizer (326).

Regarding claim 30, Epstein teaches the metallic coating comprises silver (page 10 lines 2-3).

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein in view of Hayashi as applied to claim 1 above, and further in view of Fong (US 6,280,063).

Epstein teaches that the typical view will orient the screen at an angle about 30 degrees from horizontal (page 7 lines 3-5), therefore it would have been obvious to have the collimated incident light of the ELDIM EZ contact the film at an angle of 34 degrees because it is a typical well known value. Epstein lacks reference to the claimed vertical viewing angle. Fong teaches a vertical viewing angle of greater than 20 degrees (col. 5 line 31). One would assume that the ELDIM EZ would provide results consistent with other optical measuring devices and therefore the use of the ELDIM EZ is not considered by the examiner to have patentable weight as a claim limitation for claims 7 and 8. It would have been obvious to a person of ordinary skill in the art

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at the time the invention was made to have the Epstein invention have a vertical viewing angle of greater than 20 degrees as taught by Fong for the purpose of reducing the glare seen by the user.

Response to Arguments

Applicant's arguments filed October 1, 2003 have been fully considered but they are not persuasive.

On page 7 of Amendment A, applicant argues that the examiner misinterprets the direction of the different axes of Fig. 3 of Epstein. The examiner holds that a redefinition of the axes is within the skill of one of ordinary skill in the art. The examiner can define the axes in any way so long as the way is consistent and is disclosed to the applicant so that the applicant understands the perspective used in the rejection.

On page 8 of Amendment A, applicant argues that Epstein lacks the structures extending along the x-axis. The x-axis as defined by the examiner is from left to right of Fig. 3. Fig. 3 of Epstein shows wedge structures extending from left to right between the arrows.

On page 8 of Amendment A, applicant argues that Hayashi lacks structures extending along the x-axis and the Hayashi only teaches bump like features. The examiner interprets the bumps as structures that extend in both the x and y directions because bump like structures propagate in both directions.

~~On pages 8-9 of Amendment A, applicant argues there is no teaching of using a~~
programmable cutting tool. Any cutting tool that is not manually operated is a programmable

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cutting tool and the automation of manual activities has been determined to within the skill of one of ordinary skill in the art.

On page 9 of Amendment A, applicant argues that Fong ELDIM EZ is not the same as the current application's. The applicant gives no factual basis to support this claim and therefore the examiner feels the rejection is proper.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L Pritchett whose telephone number is 703-305-7917.

The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on 703-305-0024. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JLP



DREW DUNN
SUPERVISORY PATENT EXAMINER